



United States  
Department of  
Agriculture

Soil  
Conservation  
Service



United States  
Department of  
Commerce

National  
Oceanic and  
Atmospheric  
Administration

National  
Weather  
Service



---

**APRIL 1, 1985**

---

**Water  
Supply  
Outlook  
for the  
Western  
United States**

---

## Water Supply Outlook

Published jointly by the National Weather Service NOAA and the Soil Conservation Service USDA following the principal snow survey dates from January 1 through May 1.

Some Basic Data and Streamflow Forecasts prepared by cooperating agencies are presented in this bulletin. These agencies include the Bureau of Reclamation, Corps of Engineers, Forest Service, National Park Service, Geological Survey, British Columbia Ministry of the Environment, and the California Department of Water Resources.

Copies of this publication may be obtained on request from National Weather Service, National Oceanic and Atmospheric Administration, Silver Spring, Maryland 20910, Attention: Office of Hydrology, and the Soil Conservation Service, West Technical Service Center, Room 510, 511 N.W. Broadway, Portland, Oregon 97209.

Water Supply Outlook reports prepared by other agencies include a report for California by the Snow Surveys Branch, California Department of Water Resources, P.O. Box 388, Sacramento, California 95802 — for British Columbia by the Ministry of the Environment, Water Investigations Branch, Parliament Buildings, Victoria, British Columbia V8V 1X5 — for Yukon Territory by the Department of Indian and Northern Affairs, Northern Operations Branch, 200 Range Road, Whitehorse, Yukon Territory Y1A 3V1 — and for Alberta, Saskatchewan, and N.W.T. by the Water Survey of Canada, Inland Waters Branch, 110-12 Avenue S.W., Calgary, Alberta T3C 1A6.

## To Recipients of Water Supply Outlook Reports

Most of the usable water in western states originates as mountain snowfall. This snowfall accumulates during the winter and spring, several months before the snow melts and appears as streamflow. Since the runoff from precipitation as snow is delayed, estimates of snowmelt runoff can be made well in advance of its occurrence. Fall precipitation influences the soil moisture conditions prior to formation of snowpack and explains, in part, the effectiveness of the snowpack in producing runoff. The forecasts of natural runoff in this outlook are based principally on measurements of precipitation, snow water equivalent, and antecedent runoff. Forecasts become more accurate as more of the data affecting runoff are measured. All forecasts assume that climatic factors during the remainder of the snow accumulation and melt season will interact with a resultant average effect on runoff. Early season forecasts are therefore subject to a greater change than those made on later dates. The report for Western United States presents a broad picture of water supply outlook conditions, including selected streamflow forecasts, summary of snow accumulation to date, and storage in larger reservoirs.

### Probability Forecasts

Precipitation and snowfall accumulation of known probability as determined by analysis of past records are utilized in the preparation of probability runoff forecasts. The forecasts include an evaluation of the standard error of the prediction model. The forecasts are presented at three levels of probability as follows:

1. Most Probable — That runoff which is expected to occur if precipitation subsequent to the date of forecast is median.
2. Reasonable Maximum — That runoff which is expected to occur if precipitation subsequent to the date of forecast is equal to the amount which is exceeded on the average once in ten years.
3. Reasonable Minimum — That runoff which is expected to occur if precipitation subsequent to the date of forecast is equal to the amount which is exceeded on the average nine out of ten years.

RUNOFF FORECASTS AT ALL POINTS ARE FOR FULL NATURAL OR UNIMPAIRED RUNOFF CORRECTED FOR EVAPORATION, UPSTREAM DIVERSIONS, AND ADJUSTED FOR OTHER HYDROLOGIC CHANGES AS THEY ARE DEVELOPED. REFERENCE SHOULD BE MADE TO THE U.S. GEOLOGICAL SURVEY WATER SUPPLY PAPERS FOR DETAILED INFORMATION CONCERNING DIVERSIONS AND ADJUSTMENTS AT THE VARIOUS FORECAST POINTS.

**1985 Snowmelt Season**  
**as of April 1**

WITH A FEW EXCEPTIONS, STREAMFLOW PREDICTIONS FOR THIS SEASON'S RUNOFF CHANGED LITTLE FROM THOSE MADE ON MARCH 1. SIGNIFICANT INCREASES IN EXPECTED STREAMFLOW VOLUMES IN SOUTHERN COLORADO AND NORTHERN NEW MEXICO RESULTED FROM HEAVY SNOWFALL DURING THE LATTER PART OF MARCH. RUNOFF CONDITIONS ARE STILL EXPECTED TO BE BELOW NORMAL IN THE MISSOURI BASIN.

## General Outlook

Seasonal streamflow runoff volumes remained nearly the same over the Western United States, except for the southern portions of the Colorado River and Rio Grande River Basins, which increased significantly. Basins draining the western Sierras, the upper Columbia and Kootenay in Canada, and the upper Missouri continue to indicate below normal seasonal runoff volumes. Basins that will likely produce average runoff are the Columbia, east slope Sierras, upper Green, and Arkansas. Much of the Great Basin will produce above normal flows, while the lower Colorado and Rio Grande Basins will produce well above normal volumes.

Much above normal precipitation fell over most of the Great, Colorado, and Rio Grande Basins. Likewise, heavy precipitation was reported in southeastern Idaho and eastern Montana. The Rain God missed Wyoming again during March, where rainfall has been below normal all year. The Columbia Basin received near normal precipitation, except for portions of western Montana and

Canada, where less than 50 percent of average precipitation fell during March.

Snowpack conditions are in the near normal range over much of the West. Packs that received significant additional snow and are much above normal include portions of the upper Humboldt River Basin, the Colorado River Basin, and the Rio Grande River Basin. Mountainous areas of northern New Mexico received record and near record amounts of snow. On the flip side, because of below normal snowfall all season long, snowpacks in central Wyoming are much below normal.

Expected runoff from the Rio Grande zoomed to 162 percent from 139 percent on March 1. This increase is due to the significant amounts of additional water accumulated in the southern Colorado and northern New Mexico mountains during March. Percent yields from other major rivers are as follows: Gila - 146, Snake - 109, Missouri - 83, Columbia - 96, Colorado - 138, Arkansas - 108, Green - 88, North Platte - 84, South Platte - 88.

As was the case last month, reservoir storage remains excellent throughout the West, except for the state of Montana, where reservoir contents are below normal.

## Basin by Basin Summary

### SAN JOAQUIN, SACRAMENTO AND NORTH COASTAL BASINS

During March, for the first month since November, near normal precipitation amounts fell over much of California. The exception was the Upper Sacramento and Feather River Basins where 60 to 80 percent of the monthly average precipitation was recorded. Storm systems moved through the state during the first and last weeks of the month. As has occurred with most of the storm systems this season, the storms were quite cold, dropping snow to very low elevations and eliminating lower elevation runoff into the rivers and reservoirs.

Although the water content of the snowpack is near or only slightly below normal, the spring and water year runoff volumes are expected to be below normal due to the impact of current low levels of streamflow on spring and summer snowmelt runoff. Expected water year streamflow volumes range from 65 to 75 percent of normal throughout the Sierra Basins.

Two major storm periods occurred during March, depositing normal or above normal precipitation amounts throughout this area. Due to the cold nature of these storm systems, the precipitation was in the form of snow, increasing the size and water content of the snowpack.

### COLUMBIA BASIN

The water supply outlook for the Columbia River and Pacific Coastal Basins indicates near normal volumes can be expected this season. Forecast volumes fell roughly five percent. Runoff from the Canadian portion of the basin is expected to be slightly below normal. Most basins in western Montana and northern Idaho are also expected to produce slightly below normal volumes. The forecasts for many upper Snake River tributaries

increased a few percent as a result of above normal precipitation during March. The forecast for the Snake River as a whole calls for normal runoff this season.

Precipitation was below normal over the Columbia Basin as a whole during March. This makes the fourth consecutive month of below normal precipitation in the Pacific Northwest. Conditions were driest in the Upper Columbia and Kootenay Basins where less than 50 percent of normal March precipitation was observed. Sections of western Montana were also quite dry during March. The wettest section of the basin was eastern Idaho where precipitation was well above normal. Precipitation for March was 45 percent of average for the Columbia River above Grand Coulee, 93 percent of average for the Snake River above Ice Harbor, and 71 percent of average for the Columbia River above The Dalles.

As of April 1, the snowpack in the Columbia Basin was nearly normal. Above normal snowpacks were reported in southeastern Idaho, central Oregon, southeastern Washington and at higher elevations in the Oregon and Washington Cascades. Below normal snowpacks were reported in the Canadian portion of the basin and in sections of western Montana. Relatively cool temperatures during March allowed the low elevation snowpack to persist in most sections of the basin.

The January-July forecast for the Columbia River at The Dalles, Oregon, calls for 98.6 million acre-feet or 92 percent of the 1961-1980 average. At Grand Coulee, Washington, the January-July Columbia River flow is forecast to be 56.2 million acre-feet or 87 percent of average. The Snake River Basin above Lower Granite project is forecast to produce 33.5 million acre-feet during the January-July period or 102 percent of average. The forecast for the Pacific Coastal Basins of Washington indicates near normal volumes can be expected this season. The April-September forecast for the Willamette River at Salem, Oregon, calls for 101 percent of normal.

Reservoir storage in the basin is good with most areas reporting normal volumes for April 1.

## GREAT BASIN

The water supply for the spring of 1985 looks good with most streamflows expected to be near normal or slightly above. With an apparent return of more normal spring weather, a marked contrast to 1983 and 1984, the threat of spring flooding continues to diminish. Although a few areas will likely experience some high water conditions, the likelihood of extensive snowmelt flooding is considerably less than a month ago. The greatest concerns are the shoreline of the Great Salt Lake and Utah Lake; some tributaries to the Weber River, Lost Creek and East Canyon; possibly the six creeks of Salt Lake City; and portions of the Lower Sevier River.

Streamflow forecasts generally remained the same as last month in northern Utah and Nevada and increased 10 to 20 percent in southern portions of Utah with most forecasts ranging from 90 percent of normal to 140 percent of average.

The mountain snowpack as of April 1 is close to normal in Utah, the Humboldt Basin, and Central Nevada. Snowpack percentages have declined 50 to 70 percent from January 1 and are 20 to 50 percent less than last year at this time. Some average basin snow water contents include: Bear River, 93 percent; Weber River, 108 percent; Provo-Utah Lake, 92 percent; Upper Sevier, 96 percent; Beaver, 97 percent; Lake Tahoe, 90 percent; Walker River, 85 percent; and the Humboldt at 124 percent.

March precipitation was below normal over the extreme southwest corner of the state and along the eastern shores of the Great Salt Lake. Elsewhere, it was generally wet with much of the southern and eastern areas of Utah receiving twice the normal amounts of precipitation.

Seasonal precipitation, October through March, was generally near normal over the northern third of Utah and generally above average, 120 to 150 percent, over the southern 2/3 of the state. The only area with deficient seasonal accumulation, less than 80 percent, was in the extreme southwest corner of Utah in the vicinity of St. George.

The elevation of the Great Salt Lake on April 1 was 4209.55 feet, a rise of 0.40 feet during March, very close to the average rise of 0.41 feet. This is the highest the lake has been since July of 1877. The Great Salt Lake is 2.2 feet higher than last year at this time and is expected to peak near 4210.5 feet early this summer.

Reservoir storage throughout the Great Basin remains well above average. Month-end contents of 24 reservoirs in Utah was 3.67 million acre-feet, 129 percent of average, 90 percent of capacity, and about 90,000 acre-feet more than last year at this time. In Nevada, 10 reservoirs contained 1.3 million acre feet, 129 percent of average, and 78 percent of capacity.

## COLORADO BASIN

The water supply outlook for the Upper Colorado Basin is above normal. However streamflow forecasts vary from the catchments

Seasonal precipitation, October through March, ranged from 60 percent of normal in the Upper Green River in Wyoming to as much as 150 percent for drainages over west central Colorado. Arizona, October thru March seasonal precipitation was generally 120 to 170 percent of normal.

The mountain snowpack declined dramatically in Arizona from March 1 readings and is now near normal. Throughout the Colorado Basin, the most significant snowpack increases occurred over the San Juan Basin where the average basin snowpack increased from 115 percent on March 1, to 142 percent on April 1. Elsewhere, little change occurred. Some average basin snowpacks include: Upper Green in Wyoming, 85 percent; Gunnison, 110 percent; Upper Colorado, 100 percent; Roaring Fork, 109 percent; and Dolores, 111 percent.

Much above normal runoff from basin watersheds during March was a continued reflection of the seasonal, October thru March, runoff pattern of flow volumes from 160 to 200 percent of normal.

Reservoir storage remains high. The combined storage of ten major reservoirs above Lake Powell is 135 percent of normal and nearly the same storage as last year at this time. Storage in the Salt River Project reservoirs in Arizona is 2.0 million acre-feet, 136 percent of normal. The current storage in Lake Powell is 21.4 million acre-feet, 300,000 acre-feet more than last year at this time.

## RIO GRANDE BASIN

The water supply outlook for the Rio Grande Basin is for above normal runoff over the entire basin. April 1 volume predictions increased 10 to 50 percent from the March 1 predictions with 107 to 150 percent of average in Colorado portion of the basin, 130 to 185 percent in New Mexico along the mainstem, and 185 to 215 percent of average in the Pecos River Basin.

Precipitation for the month of March was much above normal over the basin. Amounts of 3 to 5 inches, which is 4 to 7 times average, were recorded in the Upper Pecos River Basin above Santa Rosa, New Mexico. Over the remainder of the basin, amounts 2 to 4 times monthly normals were common. Totals for the season since October 1, 1984, are now above average for the entire basin.

Substantial amounts of additional snow accumulated in the mountainous areas during March. Water content at the higher elevation snow courses in the San Juan Mountains of Colorado, increased by 10 to 15 inches, an amount 30 to 50 percent of the total amount present at the end of February. Very heavy amounts were also observed in the Sangre De Cristos Mountains of northern New Mexico where the Alamitos snow course set a new maximum record. Overall, in Colorado, the basin snow courses combined are 135 percent of average, about 118 percent of last year at this time; and in New Mexico, 145 percent of average, 105 percent of last year.

Reservoir storage continues well above average over much of the basin. Amounts in storage average 246 percent of average in Colorado and 302 percent of average in New Mexico.

## ARKANSAS BASIN

The Arkansas River Basin water supply outlook indicates average to slightly above average amounts of runoff for the basin. Volume totals are predicted to be 99 to 108 percent of average along the mainstem and 100 to 125 percent of average along the tributaries.

Precipitation totals for the first six months of the season (October through March) vary from much above normal along the mainstem of the Arkansas east of Salida and on the Purgatoire River, to near normal on the mountains near Leadville. March precipitation was well above normal from Canon City to the headwaters of the

....continued on page 6

## STREAMFLOW FORECASTS

STREAM AND STATION	FORECAST PERIOD	FORECASTS THIS YEAR				20 YEAR (1961-80) AVERAGE RUNOFF (1000 AF)
		MOST PROBABLE (1000AF)	(PERCENT OF AVG.)	REASONABLE MAX. (PERCENT OF AVG.)	REASONABLE MIN. (PERCENT OF AVG.)	
SACRAMENTO AND NORTH COASTAL BASINS						
TRINITY RIVER						
CLAIR ENGLE LAKE INFLOW, CA	OCT-SEP	950	70	86	60	1365
SACRAMENTO RIVER						
SHASTA RESERVOIR ABV, CA	OCT-SEP	550	65	82	54	844
MC CLOUD RIVER						
SHASTA RESERVOIR ABV, CA	OCT-SEP	1000	78	89	70	1280
PIT RIVER						
SHASTA RESERVOIR ABV, CA	OCT-SEP	2400	73	80	68	3266
SACRAMENTO RIVER						
SHASTA RESERVOIR INFLOW, CA	OCT-SEP	4300	71	81	65	6078
RED BLUFF NR, CA	OCT-SEP	6000	68	81	61	8808
NORTH FORK FEATHER RIVER						
PRATTVILLE, NR, CA	OCT-SEP	600	76	86	70	793
BIG BAR, CA	OCT-SEP	1750	68	77	60	2572
FEATHER RIVER						
OROVILLE RESERVOIR INFLOW, CA	OCT-SEP	3000	65	79	57	4613
NORTH YUBA RIVER						
GOODYEARS BAR BLO, CA	OCT-SEP	400	71	85	61	564
SOUTH YUBA RIVER						
LANGS CROSSING, CA	OCT-SEP	270	75	92	64	358
YUBA RIVER						
SMARTVILLE, CA	OCT-SEP	1700	72	83	66	2355
MIDDLE FORK AMERICAN RIVER						
AUBURN NR, CA	OCT-SEP	760	71	91	58	1066
SILVER CREEK						
UNION VALLEY RES INFLOW, CA	OCT-SEP	120	71	85	62	170
CAMINO DIV DAM BLO, CA	OCT-SEP	230	73	89	59	314
SOUTH FORK AMERICAN RIVER						
CAMINO NR, CA	OCT-SEP	500	61	74	51	822
AMERICAN RIVER						
FOLSOM RESERVOIR INFLOW, CA	OCT-SEP	1900	72	87	63	2623
SAN JOAQUIN BASIN						
KERN RIVER						
KERNVILLE NR, CA	OCT-SEP	440	72	88	59	610
ISABELLA DAM BLO, CA	OCT-SEP	500	67	89	54	749
BAKERSFIELD NR, CA	OCT-SEP	540	69	95	54	783
TULE RIVER						
SUCCESS RESERVOIR INFLOW, CA	OCT-SEP	90	61	88	41	147
KAWeah RIVER						
TERMINUS RESERVOIR INFLOW, CA	OCT-SEP	300	66	84	55	453
NORTH FORK KINGS RIVER						
CLIFF CAMP NR, CA	OCT-SEP	230	79	101	68	292
KINGS RIVER						
PINE FLAT DAM INFLOW, CA	OCT-SEP	1200	69	89	62	1727
SOUTH FORK SAN JOAQUIN RIVER						
FLORENCE LAKE NR, CA	OCT-SEP	210	79	94	66	265
BIG CREEK						
HUNTINGTON LAKE BLO, CA	OCT-SEP	90	65	83	50	139
SAN JOAQUIN RIVER						
BIG CREEK ABV, CA	OCT-SEP	1100	79	100	73	1384
MILLERTON LAKE INFLOW, CA	OCT-SEP	1300	72	93	64	1814
MERCED RIVER						
POHONO BR, YOSEMITE NR, CA	OCT-SEP	340	75	93	64	452
LAKE MC CLURE INFLOW, CA	OCT-SEP	650	67	84	55	975
TUOLUMNE RIVER						
HETCH HETCHY NR, CA	OCT-SEP	600	79	94	69	762
DON PEDRO RES INFLOW, CA	OCT-SEP	1350	72	87	63	1885
MIDDLE FORK STANISLAUS RIVER						
SAND BAR FLAT, AVERY NR, CA	OCT-SEP	350	73	92	60	480
STANISLAUS RIVER						
MELONES RESERVOIR INFLOW, CA	OCT-SEP	800	70	89	59	1142
NORTH FORK MOKELEMNE RIVER						
SALT SPRINGS DAM BLO, CA	OCT-SEP	280	78	109	64	358
MOKELEMNE RIVER						
PARDEE RESERVOIR INFLOW, CA	OCT-SEP	520	71	92	59	735
COSUMNES RIVER						
MICHIGAN BAR, CA	OCT-SEP	200	55	81	42	365
COLUMBIA BASIN						
COLUMBIA RIVER						
BIRCHBANK, BC	APR-SEP	39300	88	106	70	44610
INTERNATIONAL BOUNDARY	APR-SEP	55000	90	107	72	61430
GRAND COULEE, WA	APR-SEP	60000	90	102	78	66840
ROCK ISLAND DAM BLO, WA	APR-SEP	65800	90	104	77	72780
THE DALLES NR, OR	APR-SEP	96700	96	111	81	101000
KOOTENAI RIVER						
LIBBY RESERVOIR INFLOW, MT	APR-SEP	5910	84	106	62	7041
LIBBY, MT	APR-SEP	6270	84	103	64	7503
LEONIA, ID	APR-SEP	7420	86	106	66	8602

## STREAMFLOW FORECASTS

STREAM AND STATION	FORECAST PERIOD	FORECASTS THIS YEAR				20 YEAR (1961-80) AVERAGE RUNOFF (1000 AF)
		MOST PROBABLE (1000AF)	(PERCENT OF AVG.)	REASONABLE MAX. (PERCENT OF AVG.)	REASONABLE MIN. (PERCENT OF AVG.)	
COLUMBIA BASIN -- Continued						
CLARK FORK						
MISSOULA ABV, MT	APR-SEP	1520	84	116	51	1815
MISSOULA BLO, MT	APR-SEP	2770	83	108	59	3319
ST. REGIS, MT	APR-SEP	3770	85	107	63	4411
PLAINS NR, MT	APR-SEP	11000	91	106	75	12150
WHITEHORSE RAPIDS, ID	APR-SEP	12400	91	107	75	13570
PEND OREILLE RIVER						
PEND OREILLE LAKE IN, ID	APR-SEP	14200	94	110	77	15150
BOX CANYON BLO, WA	APR-SEP	14400	93	110	77	15420
BLACKFOOT RIVER						
BONNER NR, MT	APR-SEP	850	85	116	54	999
BITTERROOT RIVER						
DARBY NR, MT	APR-SEP	490	84			580
AT MOUTH, MT	APR-SEP	1250	83	121	46	1504
N.F. FLATHEAD RIVER						
COLUMBIA FALLS NR, MT	APR-SEP	1740	91	119	63	1912
FLATHEAD RIVER						
COLUMBIA FALLS, MT	APR-SEP	5770	93	111	75	6208
FLATHEAD LAKE INFLOW, MT	APR-SEP	6800	93	112	74	7278
M.F. FLATHEAD RIVER						
WEST GLACIER NR, MT	APR-SEP	1760	94	122	66	1869
S.F. FLATHEAD RIVER						
HUNGRY HORSE RES INFLOW, MT	APR-SEP	2160	95	114	75	2278
PRIEST RIVER						
PRIEST RIVER, ID	APR-SEP	967	109	140	78	885
KETTLE RIVER						
LAURIER NR, WA	APR-SEP	1550	85	113	57	1829
COEUR D'ALENE RIVER						
ENAVILLE, ID	APR-SEP	926	110	143	76	844
COEUR D'ALENE LAKE IN, ID	APR-SEP	3170	111	139	84	2848
SPOKANE RIVER						
SPOKANE, WA	APR-SEP	3430	114	138	89	3021
ST JOE RIVER						
CALDER, ID	APR-SEP	1410	109	129	89	1294
OKANAGAN RIVER						
TONASKET NR, WA	APR-SEP	1370	83	106	64	1644
SIMILKAMEEN RIVER						
NIGHTHAWK NR, WA	APR-SEP	1260	86	104	73	1462
METHOW RIVER						
PATEROS NR, WA	APR-SEP	870	89	115	62	980
STEHEKIN RIVER						
STEHEKIN, WA	APR-SEP	820	95			860
CHELAN RIVER						
LAKE CHELAN INFLOW, WA	APR-SEP	1020	85	102	67	1202
WENATCHEE RIVER						
PESHASTIN, WA	APR-SEP	1660	97	128	66	1712
YAKIMA RIVER						
KEECELUS LAKE INFLOW, WA	APR-SEP	134	96	106	86	139
CLE ELUM, WA	APR-SEP	906	96	106	86	943
PARKER NR, WA	APR-SEP	1980	94	111	78	2096
KACHESS RIVER						
KACHESS LAKE INFLOW, WA	APR-SEP	117	97	107	86	121
CLE ELUM RIVER						
CLE ELUM LAKE INFLOW, WA	APR-SEP	439	95	104	86	463
NACHES RIVER						
NACHES NR, WA	APR-SEP	840	97	117	77	866
BUMPING RIVER						
BUMPING LAKE INFLOW, WA	APR-SEP	137	96	115	79	142
TIETON RIVER						
RIMROCK LAKE INFLOW, WA	APR-SEP	237	96	115	78	246
AHTANUM CREEKS						
TAMPICO NR, WA	APR-SEP	45	96	132	60	47
SNAKE RIVER						
JACKSON LAKE INFLOW, WY	APR-SEP	813	92	105	80	880
PALISADES RES INFLOW, ID	APR-SEP	3440	91	111	71	3793
HEISE NR, ID	APR-SEP	3620	89	109	69	4066
SHELLEY NR, ID	APR-JUL	4070	92	113	72	4402
BLACKFOOT NR, ID	APR-JUL	4040	90	110	70	4465
AMERICAN FALLS RES IN, ID	APR-JUL	2870	94	124	63	3063
KING HILL, ID	APR-JUL	3470	124	155	97	2788
MURPHY NR, ID	APR-JUL	3910	135	170	503	2893
WEISER, ID	APR-JUL	6630	126	169	86	5254
HELLS CANYON, ID	APR-JUL	7250	123	164	85	5902
LOWER GRANITE RES IN, WA	APR-JUL	24200	109	134	84	22140
GREY'S RIVER						
PALISADES ABV, WY	APR-SEP	294	75			393
SALT RIVER						
ETNA NR, WY	APR-SEP	322	82	100	64	394
HENRYS FORK						
ASHTON NR, ID	APR-SEP	701	98	107	89	714
REXBURG NR, ID	APR-SEP	1430	97	112	82	1469

## STREAMFLOW FORECASTS

STREAM AND STATION	FORECAST PERIOD	FORECASTS THIS YEAR			20 YEAR (1961-80) AVERAGE RUNOFF (1000 AF)	
		MOST PROBABLE (1000AF)	(PERCENT OF AVG.)	REASONABLE MAX. (PERCENT OF AVG.)	REASONABLE MIN. (PERCENT OF AVG.)	
COLUMBIA BASIN -- Continued						
FALLS RIVER						
SQUIRREL NR, ID	APR-JUL	361	99	111	87	366
TETON RIVER						
ST. ANTHONY NR, ID	APR-SEP	448	96	109	84	465
BIG LOST RIVER						
MACKAY RESERVOIR INFLOW, ID	APR-SEP	156	85	120	49	184
LITTLE LOST RIVER						
HOWE NR, ID	APR-SEP	39	93			42
PORTNEUF RIVER						
TOPAZ, ID	MAR-SEP	120	118	118	118	102
GOOSE CREEK						
OAKLEY RES INFLOW, ID	MAR-SEP	43	123	160	91	35
SALMON FALLS CREEK						
SAN JACINTO NR, NV	MAR-SEP	114	121	161	82	94
LITTLE WOOD RIVER						
CAREY NR, ID	APR-SEP	87	86	114	58	101
BIG WOOD RIVER						
HAILEY, ID	APR-SEP	265	92	118	67	287
MAGIC RESERVOIR INFLOW, ID	APR-SEP	292	95	137	52	307
BRUNEAU RIVER						
HOT SPRING NR, ID	MAR-SEP	292	120	160	81	243
OWYHEE RIVER						
GOLD CREEK NR, NV	APR-JUL	27	123	191	55	22
OWYHEE RES INFLOW, OR	MAR-JUL	538	108	155	60	499
BOISE RIVER						
TWIN SPRINGS NR, ID	APR-JUL	592	91	109	73	650
BOISE NR, ID	APR-JUL	1310	90	110	70	1454
S.F. BOISE RIVER						
ANDERSON RANCH RES IN, ID	APR-JUL	507	92	111	73	551
MALHEUR RIVER						
DREWSEY NR, OR	MAR-JUL	99	109	149	68	91
N.F. MALHEUR RIVER						
BEULAH RESERVOIR INFLOW, OR	MAR-JUL	73	103	137	69	71
PAYETTE RIVER						
HORSESHOE BEND NR, ID	APR-SEP	1690	94	112	75	1805
DEADWOOD RIVER						
DEADWOOD RES INFLOW, ID	APR-JUL	131	94	112	75	140
N.F. PAYETTE RIVER						
CASCADE RES INFLOW, ID	APR-SEP	515	93	108	78	553
WEISER RIVER						
WEISER NR, ID	APR-JUL	390	98	130	65	399
BURNT RIVER						
HEREFORD NR, OR	MAR-JUL	45	105	144	65	43
POWDER RIVER						
SUMPTER NR, OR	APR-JUL	55	98	130	66	56
EAGLE CREEK						
SKULL CREEK ABV, OR	APR-SEP	177	96			184
IMNAHA RIVER						
IMNAHA, OR	APR-SEP	300	100	128	71	301
SALMON RIVER						
SALMON, ID	APR-JUL	792	88	126	50	899
WHITEBIRD, ID	APR-JUL	5910	95	111	80	6211
LOSTINE RIVER						
LOSTINE NR, OR	APR-SEP	114	93			123
GRANDE RONDE RIVER						
LA GRANDE, OR	APR-SEP	159	98	156	41	162
TROY, OR	MAR-JUL	1490	102	131	74	1454
CLEARWATER RIVER						
OROFINO, ID	APR-JUL	5160	105	126	84	4917
SPALDING, ID	APR-JUL	8230	103	122	83	8000
N.F. CLEARWATER RIVER						
DWORSHAK RES INFLOW, ID	APR-JUL	2720	97	114	80	2805
S.F. WALLA WALLA RIVER						
MILTON NR, OR	MAR-SEP	83	104	121	86	80
UMATILLA RIVER						
GIBBON NR, OR	APR-SEP	81	105	132	78	77
PENDLETON, OR	APR-SEP	154	105	137	73	147
JOHN DAY RIVER						
SERVICE CREEK, OR	APR-SEP	977	128	158	98	764
M.F. JOHN DAY RIVER						
RITTER, OR	APR-SEP	116	104	130	77	112
N.F. JOHN DAY RIVER						
MONUMENT NR, OR	APR-SEP	512	95	95	95	539
OCHOCO CREEK						
OCHOCO RES INFLOW, OR	MAR-JUL	39	170	243	96	23
CROOKED RIVER						
PRINEVILLE RES INFLOW, OR	MAR-JUL	219	152	204	100	144
TUMALO CREEK						
BEND NR, OR	APR-SEP	49	111	125	98	44
SQUAW CREEK						
SISTERS NR, OR	APR-SEP	51	106	125	88	48

## ARKANSAS BASIN -- Continued

Arkansas and near Colorado Springs. Near average precipitation was observed from Pueblo eastward.

Mountain snowpack on the Arkansas is 103 percent of average for this time of year and about 72 percent of the totals of last year. Average snowpack ranges from 130 percent of average on the Purgatoire River to 101 percent of average on the Cucharas River.

Reservoir storages are substantial with an overall 377 percent of average that is about 133 percent of the totals of last year.

Overall, a snowpack that is slightly above average as well as substantial reservoir storages continue to indicate good water supplies for the 1985 season.

## MISSOURI BASIN

The April 1 water supply forecast calls for most of the Missouri Basin streams to have about 80 to 85 percent of average April-September streamflow.

Overall, the high elevation snowpack in the Missouri Basin is below average for this time of the year. The snowpack in the South Platte Basin is 82 percent of average, while the North Platte Basin is 80 to 86 percent of average. The snowpack in the Yellowstone Basin is 81 percent of average, with the Wind-Bighorn Basin having 72 percent of average snow. The Missouri Basin above Toston, Montana, has 84 percent of average snowpack. Between Toston and Fort Peck, Montana, the Missouri River Basin snowpack is 90 to 95 percent of average. The Milk and Saint Marys Basins have between 96 and 106 percent of average snowpack.

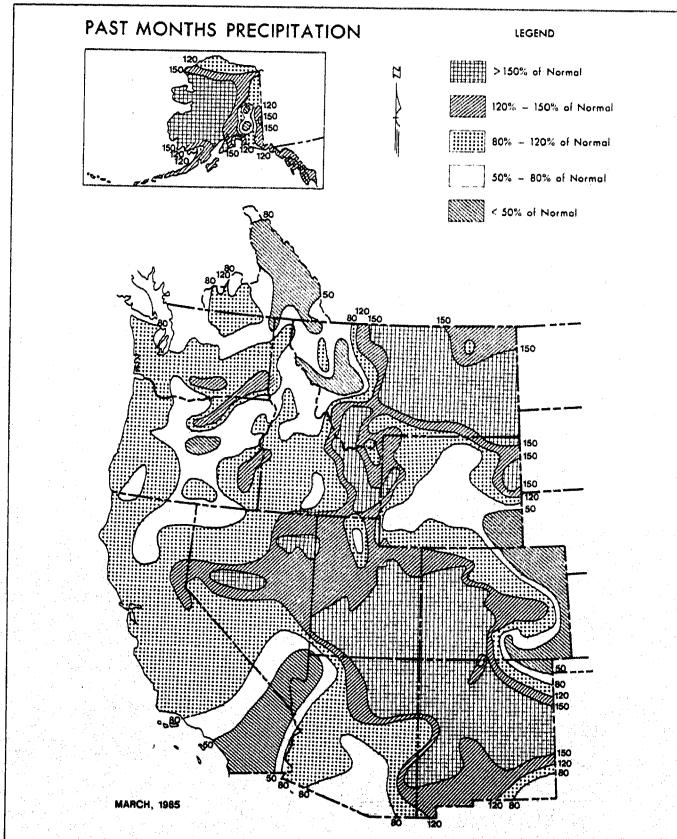
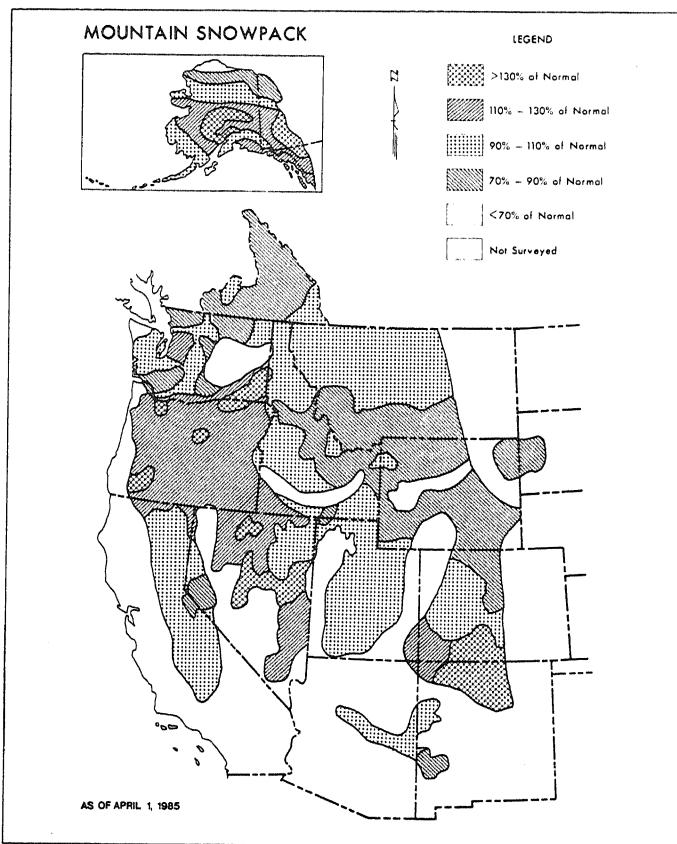
Precipitation in the Missouri Basin ranged from 480 percent (2.45 in.) at Camp Crook, South Dakota, to 0 percent at Fort Morgan, Colorado. Generally, Montana received above average March precipitation except along the Continental Divide where precipitation was below average. Precipitation in Wyoming was below average except in the Black Hills area where precipitation was above average. March precipitation was below average in Colorado, although there were isolated reports of above average precipitation.

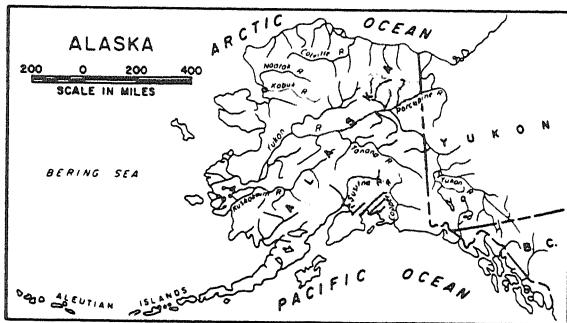
Most streams in the Missouri Basin can expect below average April-September runoff. The South Platte Basin can expect about 85 percent of average runoff as can the North Platte Basin. In the Yellowstone Basin, runoff will range from 75 to 85 percent of average. Streamflow in the Missouri Basin above Toston, Montana, is expected to be about 85 percent of average. The tributaries between Toston and Fort Peck, Montana, are expected to have near average runoff as is the Milk and St. Marys Basins.

Overall, reservoir storages in the Missouri Basin are near to slightly above average for this time of the year. The South Platte Basin Reservoirs contain 112 percent of average water. The North Platte Reservoirs contain 153 percent of average storage. Water storage in Montana is above average for Bighorn, Sherburne, and Tiber Reservoirs, while below average or near average for all other reservoirs.

## ALASKA

Heavy snow fell across Alaska during March. Most of the state received 2-3 times the normal amounts of new moisture for the month. The new snow added to already near record snowpacks. The central interior and lower Susitna Basins and the Yukon River Headwaters are covered by the second heaviest snowpack in 25 years.

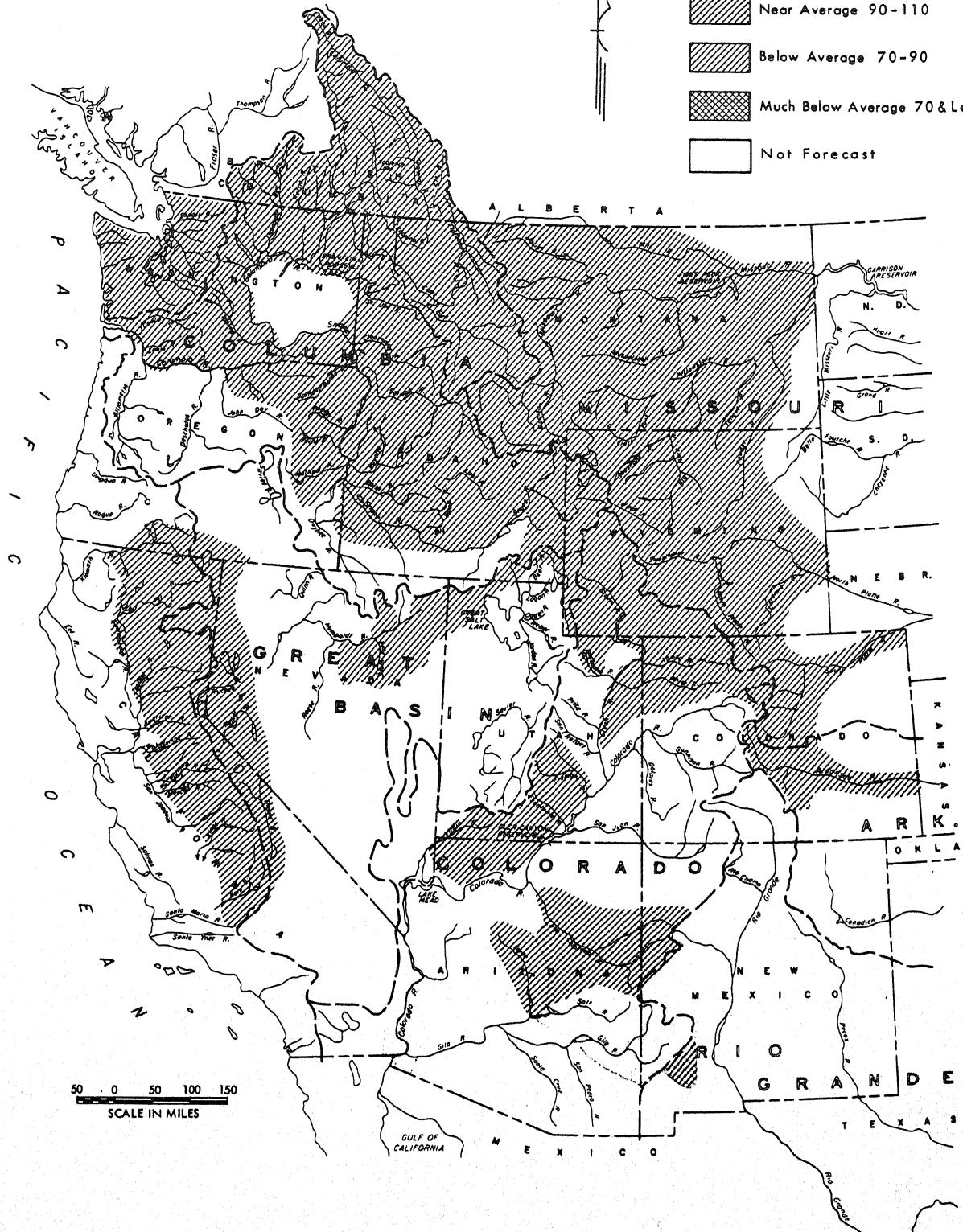




## SPRING AND SUMMER STREAMFLOW FORECASTS

### LEGEND

-  Much Above Average 130+
-  Above Average 110-130
-  Near Average 90-110
-  Below Average 70-90
-  Much Below Average 70 & Less
-  Not Forecast



**STREAMFLOW FORECASTS**

STREAM AND STATION	FORECAST PERIOD	FORECASTS THIS YEAR				20 YEAR (1961-80) AVERAGE RUNOFF (1000 AF)
		MOST PROBABLE (1000AF)	(PERCENT OF AVG.)	REASONABLE MAX. (PERCENT OF AVG.)	REASONABLE MIN. (PERCENT OF AVG.)	
<b>COLUMBIA BASIN (Cont.) AND COASTAL BASINS</b>						
DESCHUTES RIVER						
CRANE PRAIRIE INFLOW, OR	APR-SEP	125	142	178	106	88
BENHAM FALLS, OR	APR-SEP	575	106			540
MOODY, OR	APR-SEP	1960	105	115	95	1874
LITTLE DESCHUTES RIVER						
LAPINE NR, OR	APR-SEP	88	114	136	92	77
CRESCENT CREEK						
CRESCENT LAKE INFLOW, OR	APR-SEP	23	110	143	77	21
WHITE RIVER						
TYGH VALLEY BLO, OR	APR-SEP	160	126	148	104	127
MCKENZIE RIVER						
VIDA NR, OR	APR-SEP	1370	114	114	114	1207
S. SANTIAM RIVER						
WATERLOO, OR	APR-SEP	650	112	112	112	578
N. SANTIAM RIVER						
MEHAMA, OR	APR-SEP	926	111	111	111	838
CLACKAMAS RIVER						
ESTACADA, OR	APR-SEP	900	117			767
WILLAMETTE RIVER						
SALEM, OR	APR-SEP	4700	101	101	101	4655
DUNGENESS RIVER						
SEQUIM NR, WA	APR-SEP	143	89			160
SKAGIT RIVER						
CONCRETE NR, WA	APR-SEP	6190	92	108	76	6724
COWLITZ RIVER						
MAYFIELD RES INFLOW, WA	APR-SEP	1990	98	134	61	2038
CASTLE ROCK, WA	APR-SEP	2400	90	129	51	2673
LEWIS RIVER						
ARIEL, WA	APR-SEP	1230	98	125	72	1249
N. UMPQUA RIVER						
LEMOLO LAKE INFLOW, OR	APR-SEP	160	103	113	92	156
ROGUE RIVER						
RAYGOLD, OR	APR-SEP	970	110	133	87	880
WILLIAMSON RIVER						
SPRAGUE RIVER BLO, OR	MAR-SEP	546	112	146	77	489
KLAMATH RIVER						
UPPER KLAMATH LAKE IN, OR	MAR-SEP	763	113	147	79	674
SPRAGUE RIVER						
CHILOQUIN NR, OR	MAR-SEP	309	109	149	68	284
<b>GREAT BASIN</b>						
BEAR RIVER						
UTAH-WYOMING STATE LINE NR	APR-JUL	130	118	135	102	110
WOODRUFF NARROWS RES IN UT	APR-JUL	174	125	155	97	139
HARER, ID	APR-SEP	227	73	95	54	310
SMITHS FORK						
BORDER NR, WY	APR-SEP	93	78	93	67	119
THOMAS FORK						
WYOMING-IDAHO STATE LINE NR	APR-SEP	26	74			35
LOGAN RIVER						
LOGAN NR, UT	APR-JUL	115	99	113	86	116
BLACKSMITH FORK						
HYRUM NR, UT	APR-JUL	59	116	143	92	51
WEBER RIVER						
OAKLEY NR, UT	APR-JUN	118	116	131	94	102
ROCKPORT RES INFLOW, UT	APR-JUN	131	118	140	88	111
ECHO RESERVOIR INFLOW, UT	APR-JUN	178	123	146	103	145
GATEWAY, UT	APR-JUN	380	127	144	110	300
CHALK CREEK						
COALVILLE, UT	APR-JUN	43	119	149	94	36
EAST CANYON CREEK						
EAST CANYON RES INFLOW, UT	APR-JUN	42	168	196	148	25
SOUTH FORK OGDEN RIVER						
HUNTSVILLE NR, UT	APR-JUN	63	111	132	88	57
OGDEN RIVER						
PINE VIEW RES INFLOW, UT	APR-JUN	129	112	130	94	115
JORDAN RIVER						
UTAH LAKE INFLOW, UT	APR-JUL	405	170	198	146	238
SPANISH FORK						
CASTILLA, UT	APR-JUL	131	136	154	122	96
PROVO RIVER						
HAILSTONE NR, UT	APR-JUL	125	118	136	93	106
DEER CREEK RES INFLOW, UT	APR-JUL	152	127	148	105	120
AMERICAN FORK						
AMERICAN FORK NR, UT	APR-JUL	40	129	145	119	31
LITTLE COTTONWOOD CREEK						
SALT LAKE CITY NR, UT	APR-JUL	46	120	133	112	38
BIG COTTONWOOD CREEK						
SALT LAKE CITY NR, UT	APR-JUL	52	140	151	126	37
MILL CREEK						
SALT LAKE CITY NR, UT	APR-JUL	8.4	142	164	125	5.9

STREAMFLOW FORECASTS

STREAM AND STATION	FORECAST PERIOD	FORECASTS THIS YEAR			20 YEAR (1961-80) AVERAGE RUNOFF (1000 AF)
		MOST PROBABLE (1000AF) (PERCENT OF AVG.)	REASONABLE MAX (PERCENT OF AVG.)	REASONABLE MIN (PERCENT OF AVG.)	
GREAT BASIN -- Continued					
PARLEYS CREEK					
SALT LAKE CITY NR, UT	APR-JUL	21	143	177	122
SIX CREEKS					
SALT LAKE CITY NR, UT	APR-JUL	142	133	149	119
SEVIER RIVER					
HATCH, UT	APR-JUL	61	127	158	104
KINGSTON NR, UT	APR-JUL	44	153	215	104
PIUTE RESERVOIR INFLOW, UT	APR-JUL	70	155	219	104
IN-SIGURD TO GUNNISON, UT	APR-JUL	145	557	637	480
GUNNISON NR, UT	APR-JUL	175	325		54
EAST FORK SEVIER RIVER					
KINGSTON NR, UT	APR-JUL	24	127	185	95
BEAVER RIVER					
BEAVER NR, UT	APR-JUL	27	117	157	78
COAL CREEK					
CEDAR CITY NR, UT	APR-JUL	20	109	136	87
HUMBOLDT RIVER					
PALISADE, NV	APR-JUL	250	109		230
COMUS, NV	APR-JUL	200	116		173
NORTH FORK HUMBOLDT RIVER					
HALLECK NR, NV	APR-JUL	37	106		35
SOUTH FORK HUMBOLDT RIVER					
ELKO NR, NV	APR-JUL	81	108		75
MARTIN CREEK					
PARADISE VALLEY NR, NV	APR-JUL	20	125		16
DONNER UND BLITZEN RIVER					
FRENCHGLEN NR, OR	MAR-JUL	74	119		62
CHEWAUCAN RIVER					
PAISLEY NR, OR	MAR-JUL	93	112	146	78
SILVIES RIVER					
BURNS NR, OR	MAR-JUL	120	124	168	79
DEEP CREEK					
ADEL ABV, OR	MAR-JUL	81	105		77
LITTLE TRUCKEE RIVER					
BOCA ABV, CA	APR-JUL	83	89		93
TRUCKEE RIVER					
LAKE TAHOE INFLOW	APR-JUL	140			170
LAKE TAHOE STAGE RISE	APR-HIGH	1.20	86		1.39
FARAD, CA	APR-JUL	245	91		269
EAST CARSON RIVER					
GARDNERVILLE, NR, NV	APR-JUL	170	91		187
WEST CARSON RIVER					
WOODFORDS, CA	APR-JUL	48	91		53
CARSON RIVER					
FORT CHURCHILL NR, NV	APR-JUL	148	89		166
CARSON CITY NR, NV	APR-JUL	160	88		182
EAST WALKER RIVER					
BRIDGEPORT NR, CA	APR-AUG	63	95		66
WEST WALKER RIVER					
L.WALKER BLO COLEVILLE NR, CA	APR-JUL	139	94		148
COLORADO BASIN					
COLORADO RIVER					
LAKE GRANBY INFLOW, CO	APR-SEP	219	95	111	79
HOT SULPHUR SPRINGS, CO	APR-SEP	430	105	123	90
DOTSERO NR, CO	APR-SEP	1644	110	124	98
GLENWOOD SPRINGS BLO, CO	APR-SEP	2600	115	130	101
CAMEO NR, CO	APR-SEP	2750	112	128	98
CAMEO NR, CO UNADJ	APR-SEP	2300	119	138	102
CISCO NR, UT	APR-JUL	4600	151	181	126
LAKE POWELL INFLOW, AZ	APR-JUL	10300	138	166	113
FRASER RIVER					
WINTER PARK NR, CO	APR-SEP	25	116	134	102
WILLIAMS FORK					
PARSHALL NR, CO	APR-SEP	66	106	142	77
BLUE RIVER					
DILLON RESERVOIR INFLOW, CO	APR-SEP	175	102	116	91
GREEN MOUNTAIN RES IN, CO	APR-SEP	307	102	119	87
EAGLE RIVER					
GYPSUM BLO, CO	APR-SEP	380	121	134	108
ROARING FORK					
GLENWOOD SPRINGS, CO	APR-SEP	858	117	133	101
PLATEAU CREEK					
CAMEO NR, CO	APR-SEP	140	159	187	135
TAYLOR RIVER					
TAYLOR PARK RES INFLOW, CO	APR-SEP	130	113	132	100
ALMONT, CO	APR-SEP	215	118	137	102
GUNNISON RIVER					
BLUE MESA INFLOW, CO	APR-SEP	1000	127	148	110
GRAND JUNCTION NR, CO	APR-SEP	1850	147	177	124
EAST RIVER					
ALMONT, CO	APR-SEP	225	111	129	97

**STREAMFLOW FORECASTS**

STREAM AND STATION	FORECAST PERIOD	FORECASTS THIS YEAR				20 YEAR (1961-80) AVERAGE RUNOFF (1000 AF)
		MOST PROBABLE (1000AF) (PERCENT OF AVG.)	REASONABLE MAX. (PERCENT OF AVG.)	REASONABLE MIN. (PERCENT OF AVG.)	1000 AF)	
<b>COLORADO -- Continued</b>						
UNCOMPAGRE RIVER						
COLONA, CO	APR-SEP	154	115	139	96	134
DELTA, CO	APR-SEP	160	124	145	107	129
DOLORES RIVER						
DOLORES, CO	APR-SEP	333	130	155	109	256
SAN MIGUEL RIVER						
NATURITA, CO	APR-SEP	260	155	191	127	168
GREEN RIVER						
WARREN BRIDGE, WY	APR-SEP	270	83	92	73	326
FONTENELLE RES INFLOW, WY	APR-JUL	750	86	102	69	869
GREEN RIVER, WY	APR-SEP	850	79			1079
FLAMING GORGE INFLOW, UT	APR-JUL	1100	88	109	69	1248
GREEN RIVER, UT	APR-JUL	3100	103	125	81	3016
BIG SANDY RIVER						
BIG SANDY NR, WY	APR-SEP	50	82			61
NEW FORK						
BIG PINEY, WY	APR-SEP	335	75	79	61	448
PINE CREEK						
FREMONT LAKE ABV, WY	APR-SEP	100	83	92	75	120
HENRYS FORK						
MANILA, UT	APR-SEP	70	146	183	118	48
YAMPA RIVER						
STEAMBOAT SPRINGS, CO	APR-SEP	273	96	114	80	284
HAYDEN NR, CO	APR-SEP	700	101	118	84	696
MAYBELL NR, CO	APR-SEP	908	95	112	78	956
ELK RIVER						
CLARK, CO	APR-SEP	180	87	101	74	207
LITTLE SNAKE RIVER						
DIXON NR, WY	APR-SEP	305	95			320
LILY NR, CO	APR-SEP	328	92	113	74	357
ASHLEY CREEK						
VERNAL NR, UT	APR-JUL	58	114	135	96	51
ROCK CREEK						
MOUNTAIN HOME NR, UT	APR-JUL	102	110	128	94	93
WEST FORK DUCHESNE RIVER						
HANNA, UT	APR-JUL	29	112	127	96	26
DUCHESNE RIVER						
TABIONA NR, UT	APR-JUL	114	109	123	95	105
DUCHESNE, UT ABV KNIGHT DIV	APR-JUL	206	109	126	94	189
MYTON, UT	APR-JUL	290	141	167	110	205
RANDLETT, UT	APR-JUL	365	142			257
STRAWBERRY RIVER						
STRAWBERRY RES INF, UT	APR-JUL	72	136	151	119	53
DUCHESNE, UT	APR-JUL	70	121			58
STARVATION RES INFLOW, UT	APR-JUL	70	121	145	97	58
LAKE FORK						
MOON LAKE RES INFLOW, UT	APR-JUL	71	101	124	84	70
WHITE RIVER						
MEEKER NR, CO	APR-SEP	289	95	112	80	304
WATSON NR, UT	APR-SEP	400	124	143	107	322
UINTA RIVER						
NEOLA NR, UT	APR-JUL	102	119			86
WHITEROCKS RIVER						
WHITEROCKS NR, UT	APR-JUL	70	121			58
PRICE RIVER						
SCOFIELD RES INFLOW, UT	APR-JUL	50	132	150	116	38
COTTONWOOD CREEK						
ORANGEVILLE NR, UT	APR-JUL	68	145			47
HUNTINGTON CREEK						
HUNTINGTON NR, UT	APR-JUL	70	143	161	129	49
SAN JUAN RIVER						
PAGOSA SPRINGS, CO	APR-SEP	290	132	150	119	220
NAVAJO RESERVOIR INFLOW, NM	APR-JUL	1200	165	200	136	729
FARMINGTON, NM	APR-SEP	1650	150	184	122	1100
BLUFF NR, UT	APR-JUL	1550	156	196	125	995
PIEDRA RIVER						
ARBOLES NR, CO	APR-SEP	300	133	156	117	225
NAVAJO RIVER						
EDITH, CO	APR-SEP	90	170	204	143	53
LOS PINOS RIVER						
VALLECITO RES INFLOW, CO	APR-SEP	275	126	146	111	219
ANIMAS RIVER						
DURANGO, CO	APR-SEP	600	131	154	112	458
FLORIDA RIVER						
BONDAD NR, CO	APR-SEP	46	124	145	105	37
LA PLATA RIVER						
HESPERUS, CO	APR-SEP	32	122	152	106	26
LITTLE COLORADO RIVER						
LYMAN ABV, AZ	APR-MAY	9.0	88			10.2
WOODRUFF, AZ	NOV-JUN	52	301	370	243	17.3

**STREAMFLOW FORECASTS**

STREAM AND STATION	FORECAST PERIOD	FORECASTS THIS YEAR				20 YEAR (1961-80) AVERAGE RUNOFF (1000 AF)
		MOST PROBABLE (1000AF)	(PERCENT OF AVG.)	REASONABLE MAX (PERCENT OF AVG.)	REASONABLE MIN (PERCENT OF AVG.)	
<b>COLORADO -- Continued</b>						
CHEVELON CREEK WINSLOW NR, AZ	NOV-JUN	60	130	163	107	46
CLEAR CREEK WINSLOW NR, AZ	NOV-JUN	86	134	155	116	64
VIRGIN RIVER HURRICANE, UT	APR-JUN	74	119	150	100	62
GILA RIVER GILA NR, NM	APR-MAY	34	143	228	101	24
VIRDEN NR, NM	APR-MAY	40	145	247	95	28
SOLOMON NR, AZ	APR-MAY	90	146	363	2	62
CALVA, AZ	APR-MAY	72	117	318	2	62
SAN FRANCISCO RIVER GLENWOOD NR, NM	APR-MAY	20	130	279	52	15.4
CLIFTON, AZ	APR-MAY	42	135	345	3	31
SALT RIVER SALT AT INTAKE, AZ	APR-MAY	290	143			202
ROOSEVELT NR, AZ	APR-MAY	290	143	208	91	202
TONTO CREEK ROOSEVELT NR, AZ	APR-MAY	15.0	106	176	14	14.2
VERDE RIVER HORSESHOE DAM ABV, AZ	APR-MAY	60	74	201	10	81
<b>RIO GRANDE BASIN</b>						
RIO GRANDE THIRTY MILE BRIDGE, CO	APR-SEP	176	140	175	86	126
WAGON WHEEL GAP, CO	APR-SEP	425	137	174	85	310
DEL NORTE NR, CO	APR-SEP	700	142	184	85	494
OTOWI BRIDGE, NM	MAR-JUL	970	162	250	73	600
SAN MARCIAL, NM	MAR-JUL	765	182	302	60	420
SOUTH FORK RIO GRANDE SOUTH FORK, CO	APR-SEP	180	142	173	91	127
SAGUACHE CREEK SAGUACHE NR, CO	APR-SEP	32	107	173	60	30
ALAMOSA CREEK TERRACE RESERVOIR INFLOW, CO	APR-SEP	96	145	174	91	66
CONEJOS RIVER MOGOTE NR, CO	APR-SEP	265	136	177	90	195
CULEBRA CREEK SAN LUIS, CO	APR-SEP	26	144	322	72	18
COSTILLA CREEK COSTILLA NR, NM	MAR-JUL	29	150	310	79	19
RED RIVER AT MOUTH, QUESTA NR, NM	MAR-JUL	42	140	200	83	30
RIO HONDO VALDEZ NR, NM	MAR-JUL	20	133	253	73	15
RIO PUEBLO DE TAOS LOS CORDOVAS BLO, NM	MAR-JUL	45	167	252	85	27
RIO CHAMA EL VADO RES INFLOW, NM	MAR-JUL	302	145	202	72	208
CHAMITA NR, NM	MAR-JUL	410	154	222	70	266
RIO OJO CALIENTE LA MADERA, NM	MAR-JUL	60	167	222	83	36
SANTA CRUZ RIVER CUNDIYO, NM	MAR-JUL	22	157	229	79	14
JEMEZ RIVER JEMEZ NR, NM	MAR-JUL	56	140	220	75	40
PECOS RIVER PECOS NR, NM	MAR-JUL	85	189	256	100	45
ANTON CHICO NR, NM	MAR-JUL	100	213	309	98	47
GALLINAS CREEK MONTEZUMA NR, NM	MAR-JUL	14	200	314	100	7
<b>ARKANSAS BASIN</b>						
ARKANSAS RIVER GRANITE, CO	APR-SEP	188	99	123	77	190
SALIDA, CO	APR-SEP	310	103	146	68	300
CANON CITY	APR-SEP	349	108	178	39	322
PUEBLO ABV, CO	APR-SEP	300	108	202	21	278
GRAPE CREEK WESTCLIFFE NR, CO	APR-SEP	16	100	194	38	16
HUERFANO RIVER REDWING NR, CO	APR-SEP	15	100	233	40	15
CUCHARAS RIVER BOYD RANCH, LA VETA NR, CO	APR-SEP	13	118	209	64	11
PURGATOIRE RIVER TRINIDAD, CO	APR-SEP	45	125	214	42	36

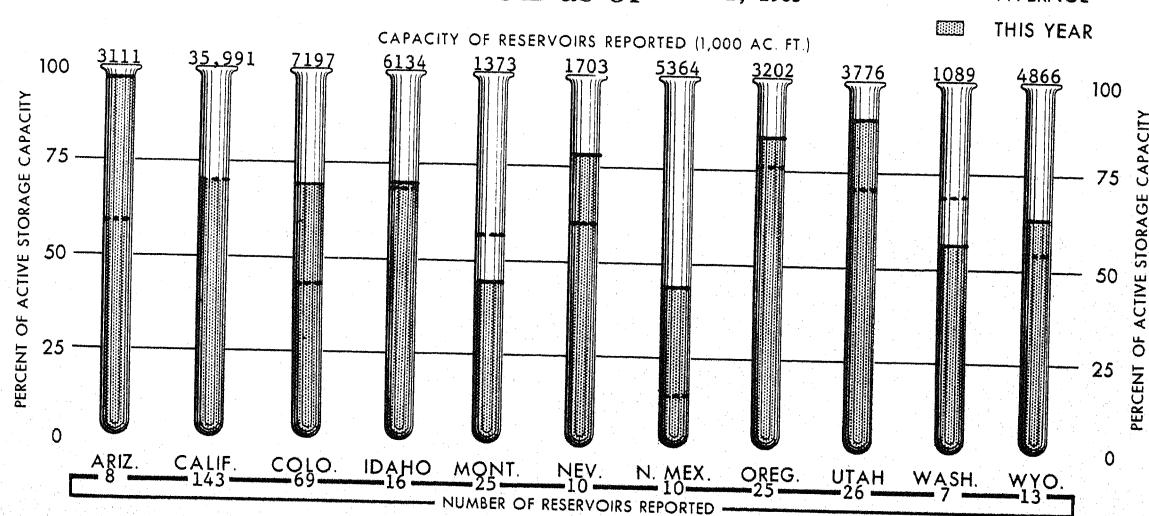
## STREAMFLOW FORECASTS

STREAM AND STATION	FORECAST PERIOD	FORECASTS THIS YEAR			20 YEAR (1961-80) AVERAGE RUNOFF (1000 AF)	
		MOST PROBABLE (1000AF) (PERCENT OF AVG.)	REASONABLE MAX. (PERCENT OF AVG.)	REASONABLE MIN. (PERCENT OF AVG.)		
MISSOURI BASIN						
RED ROCK RIVER MONIDA NR, MT	APR-SEP	92.0	89		103	
BEAVERHEAD RIVER GRANT, MT	APR-SEP	136	86		158	
BARRETT'S, MT	APR-SEP	180	86		209	
BIG HOLE RIVER MELROSE NR, MT	APR-SEP	640	84		760	
RUBY RIVER ALDER NR, MT	APR-SEP	87.5	87		101	
MADISON RIVER GRAYLING NR, MT	APR-SEP	415	84		496	
MCALLISTER NR, MT	APR-SEP	705	83		848	
GALLATIN RIVER GALLATIN GATEWAY NR, MT	APR-SEP	460	84		545	
LOGAN, MT	APR-SEP	485	79		611	
MISSOURI RIVER TOSTON, MT	APR-SEP	2080	82		2545	
FORT BENTON, MT	APR-SEP	3250	82		3980	
VIRGELLE, MT	APR-SEP	3795	83		4570	
LANDUSKY NR, MT	APR-SEP	4205	84		4980	
FORT PECK DAM BLO, MT	APR-SEP	4100	83		4960	
LAKE SAKAKAWEA INFLOW, ND	APR-SEP	10460	82		12755	
LITTLE MISSOURI RIVER WATFORD CITY NR, ND	FEB-SEP	298	65	107	39	459
HEART RIVER MANDAN, ND	MAR-APR	42.2	41	69	26	103
MISSOURI RIVER TRIBUTARIES FORT RANDALL DAM ABV, SD	MAR-APR	1000	72	85	68	1390
SHEEP CREEK WHITE SULPHUR SPRINGS, MT	APR-SEP	21.0	96			21.8
SUN RIVER GIBSON RES INFLOW, MT	APR-SEP	545	96			570
BELT RIVER MONARCH NR, MT	APR-SEP	128	96			134
MARIAS RIVER SHELBY NR, MT	APR-SEP	489	90			542
MUSSELSHELL RIVER HARLOWTON, MT	APR-SEP	91.0	93	152	67	97.9
MILK RIVER WESTERN CROSSING, MT	MAR-SEP	54.2	99	161	81	54.7
MILK RIVER, ALBERTA EASTERN CROSSING	MAR-SEP	80.6	99	175	70	81.4
YELLOWSTONE RIVER	APR-SEP	79.7	98	171	73	81.7
YELLOWSTONE LAKE OUTLET, WY CORWIN SPRINGS, MT	APR-SEP	718	87			825
LIVINGSTON NR, MT	APR-SEP	1740	86			2027
BILLINGS, MT	APR-SEP	2025	85			2379
MILES CITY, MT	APR-SEP	3810	85			4486
SIDNEY NR, MT	APR-SEP	5710	84			6787
BOULDER RIVER BIG TIMBER, MT	APR-SEP	6195	82			7518
STILLWATER RIVER ABSAROKEE NR, MT	APR-SEP	330	83			398
CLARKS FORK YELLOWSTONE R BELFRY NR, MT	APR-SEP	540	85			632
WIND RIVER DUBOIS NR, WY	APR-SEP	500	80			628
BOYSEN DAM BLO, WY	APR-SEP	90.0	85			106
BIG HORN RIVER KANE, WY	APR-SEP	1030	89			1163
ST. XAVIER NR, MT	APR-SEP	1075	88			1225
GREYBULL RIVER MEETEETSE, WY	APR-SEP	1680	85			1976
SHELL CREEK SHELL NR, WY	APR-SEP	172	80			214
SHOSHONE RIVER BUFFALO BILL DAM BLO, WY	APR-SEP	60.0	77			77.9
LITTLE BIGHORN RIVER HARDIN NR, MT	APR-SEP	640	76			844
TONGUE RIVER DAYTON NR, WY	APR-SEP	145	80	114	50	182
DECKER NR, MT	APR-SEP	98.0	80			123
CLEAR CREEK BUFFALO NR, WY	APR-SEP	215	80	130	33	269
NORTH FORK POWDER RIVER HAZELTON NR, WY	APR-SEP	28.0	70			40.2
POWDER RIVER MOORHEAD, MT	APR-SEP	8.0	75			10.6
LOCATE NR, MT	APR-SEP	191	73	128	26	263
NORTH PLATTE RIVER NORTHGATE NR, CO	APR-SEP	236	73	130	23	325
SINCLAIR NR, WY	APR-SEP	596	84			710

### STREAMFLOW FORECASTS

STREAM AND STATION	FORECAST PERIOD	FORECASTS THIS YEAR			20 YEAR (1961-80) AVERAGE RUNOFF (1000 AF)
		MOST PROBABLE (1000AF)	REASONABLE MAX (PERCENT OF AVG.)	REASONABLE MIN (PERCENT OF AVG.)	
MISSOURI BASIN -- Continued					
NORTH PLATTE RIVER (CONT.)					
GLENDO BLO, WY	APR-SEP	817	84		
GUERNSEY RES BLO, WY	APR-SEP	840	84		973
SWEETWATER RIVER					1001
ALCOVA, WY	APR-SEP	51.6	70	143	
LARAMIE RIVER					73.7
WOODS, WY	APR-SEP	110	83		
SOUTH PLATTE RIVER					132
LAKE GEORGE NR, CO	APR-SEP	37.9	83	150	
CHEESMAN LAKE BLO, CO	APR-SEP	80.8	85	166	45.9
SOUTH PLATTE, CO	APR-SEP	173	88	157	46
NORTH FORK SOUTH PLATTE R					95.1
SOUTH PLATTE, CO	APR-SEP	75.9	99	160	53
BEAR CREEK					197
MORRISON, CO	APR-SEP	24.4	85		
CLEAR CREEK					28.7
GOLDEN NR, CO	APR-SEP	106	83		
ST. VRAIN CREEK					127
LYONS, CO	APR-SEP	59.0	75		
MIDDLE BOULDER CREEK					78.8
NEDERLAND, CO	APR-SEP	31.0	85	118	
SOUTH BOULDER CREEK					67
ELDORADO SPRINGS NR, CO	APR-SEP	35.8	85	136	36.5
BIG THOMPSON RIVER					
ESTES PARK, CO	APR-SEP	62.2	80	115	63
DRAKE, CO	APR-SEP	97.0	85		42.1
CACHE LA POUDRE RIVER					
FT. COLLINS NR, CO	APR-SEP	230	86		78.0
					114
					268
SASKATCHEWAN BASIN					
ST. MARY RIVER					
BABB NR, MT	APR-SEP	470	97		487
ALASKA					
YUKON RIVER					
EAGLE, AK	APR-JUL	45000	126		
STEVENS VILLAGE, AK	APR-JUL	57800	120		35790
SALCHA RIVER					48330
SALCHAKET NR, AK	APR-JUL	880	124		
CHENA RIVER					708
FAIRBANKS, AK	APR-JUL	650	121		
LITTLE CHENA RIVER					535
FAIRBANKS, AK	APR-JUL	101	125		
SHIP CREEK					81
ANCHORAGE NR, AK	APR-JUL	64	103		
N.F. CAMPBELL CREEK					62
ANCHORAGE NR, AK	APR-JUL	4.6	96		
ANCHOR RIVER					4.8
ANCHOR POINT NR, AK	APR-JUL	74	87		
LITTLE SUSITNA RIVER					85
PALMER NR, AK	APR-JUL	106	115		
SUSITNA RIVER					92
GOLD CREEK, AK	APR-SEP	6520	110		
					5919

### RESERVOIR STORAGE as of APRIL 1, 1985



---

## **ADDITIONAL INFORMATION MAY BE OBTAINED FROM THE FOLLOWING LOCATIONS**

### **SOIL CONSERVATION SERVICE**

#### **State Snow Survey Supervisors**

Room 129. 2221 E. Northern Lights Blvd., Anchorage, AK 99508  
201 E. Indianola, Suite 200, Phoenix, AZ 85012  
2490 W. 26th Ave., Bldg. A, 3rd Floor, Denver, CO 80211 (Includes New Mexico)  
Room 345, 304 N. 8th St., Boise, ID 83702  
10 E. Babcock, Room 443, Fed. Bldg., Bozeman, MT 59715  
50 South Virginia St., Reno, NV 89505  
1220 S.W. Third Ave., Portland, OR 97204  
4420 Fed. Bldg., 125 So. State ST., Salt Lake City, UT 84138  
360 U.S. Courthouse, Spokane, WA 99201  
100 E. "B" St., Casper, WY 82601

### **NATIONAL WEATHER SERVICE**

#### **River Forecast Center Offices**

Fed. Bldg. & Courthouse, 701 C St., Box 23, Anchorage, AK 99513  
819 Taylor St., Rm. 10A02, Fort Worth, TX 76102  
Rm. 1715A, 601 E. 12th St., Kansas City, MO 64106  
121 Customhouse, Portland, OR 97209  
1641 Resources Building, 1416 - 9th St., Sacramento, CA 95814  
337 No. 2730 West, Executive Terminal Bldg., Salt Lake City, UT 84116  
Room 201, General Aviation Bldg, International Airport, Tulsa, OK 74115